

CLAIMS

What is claimed is:

1. An automotive lamp comprising:
 - a. a light source;
 - b. a reflector positioned to reflect light from the light source; and
 - c. a lens positioned to receive light emitted from the light source and light reflected off the reflector, the bifocal lens comprising
 - (i) a first portion having a focal point at the light source; and
 - (ii) a second portion having a focal point at a virtual focus of the reflector.
2. The automotive lamp of claim 1 wherein the shape of the reflector is hyperbolic.
3. The automotive lamp of claim 1 wherein the first portion of the lens is located near the center of the lens.
4. The automotive lamp of claim 3 wherein the second portion of the lens at least partially surrounds the first portion of the lens.
5. The automotive lamp of claim 4 wherein the second portion of the lens is concentric with the first portion of the lens.
6. The automotive lamp of claim 1 where in the first portion of the lens is integral with the second portion of the lens such that the lens is a unitary piece.
7. The automotive lamp of claim 1 wherein the first portion of the lens collimates light emitted from the light source and the second portion of the lens collimates light reflected from the reflector.

8. A method of providing a beam of light for an automotive lamp, the method comprising:
 - a. providing a light source, a reflector and a bifocal lens, the lens comprising a first portion having a focal point at the light source and a second portion having a focal point at a virtual focus of the reflector; and
 - b. energizing the light source such that light is emitted from the light source and reflected off the reflector, thereby causing light to pass through the bifocal lens and provide a substantially collimated beam of light.
9. The method of claim 8 where the reflector is hyperbolic in shape.
10. The method of claim 8 where the first part of the bifocal lens and the second part of the bifocal lens are integral to form a unitary piece.
11. The method of claim 8 where the substantially collimated beam of light serves as an automotive headlamp.
12. The method of claim 8 where the substantially collimated beam of light serves as an automotive tail lamp.
13. An automotive lamp comprising:
 - a. a light source;
 - b. a reflector positioned to reflect light from the light source, wherein light emitted from the reflector appears to emit from a virtual focus; and
 - c. a means for collimating the light emitted from the light source and reflected off the reflector, the means for collimating light including a first focal point at the light source and a second focal point at the virtual focus.
14. The automotive lamp of claim 13 wherein the shape of the reflector is hyperbolic.

15. The automotive lamp of claim 13 wherein the means for collimating light is a bifocal lens includes a first portion and a second concentric portion.
16. The automotive lamp of claim 15 wherein the first portion of the lens is integral with the second portion of the lens such that the lens is a unitary piece.